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J.O

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/004,827 01/09/98 PAGE

L 596-213

LM02/0826

EXAMINER

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LE, U

ART UNIT	PAPER NUMBER
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2771

DATE MAILED:

08/26/99

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

## Office Action Summary

Application No. 09/004,827	Applicant(s)	Page
Examiner Uyen Le	Group Art Unit 2771	

- Responsive to communication(s) filed on \_\_\_\_\_.
- This action is FINAL.
- Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

### Disposition of Claims

- Claim(s) 1-8 is/are pending in the application.
- Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- Claim(s) \_\_\_\_\_ is/are allowed.
- Claim(s) 1-8 is/are rejected.
- Claim(s) \_\_\_\_\_ is/are objected to.
- Claims \_\_\_\_\_ are subject to restriction or election requirement.

### Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All  Some\*  None of the CERTIFIED copies of the priority documents have been
- received.
- received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

- Notice of References Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- Interview Summary, PTO-413
- Notice of Draftsperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

1. Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 1 merely recites a computer implemented method processing a mathematical algorithm for determining the rank of a node without any practical application.

The art rejection of claims 1-8 is applied as best understood in light of the rejection under 35 USC 101 above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gansner et al (US Patent 4,953,106).

Regarding claim 1, the claimed method of node ranking is disclosed by Gansner when Gansner uses a computer implemented method for drawing directed graphs providing reduced crossings. Although Gansner does not specifically use the algorithm claimed to rank nodes, Gansner discloses node ranking for distinguishing nodes belonging to the same rank (see the abstract). The equation cited in claim 1 is merely a mathematical descriptive formula resulting in a pure numerical solution with no patentability weight.

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Therefore, it would have been obvious to one of ordinary skill in the art to use any appropriate algorithm to rank nodes in the method taught by Gansner depending on design requirements and choice.

Claims 2, 3 merely read on the fact that a recursive technique for ranking nodes is taken into consideration for the choice of the probability matrix used in the claimed equation. Also note that the concept of the weighted sum is well known in the art for node ranking as shown by Gansner (see the abstract).

Claim 4 reciting the use of a constant representing the probability that a surfer will randomly jump to the node and claim 5 reciting the use of a distance between the node and backlink nodes are merely well known techniques for node ranking.

Claims 6, 7 recite selecting an initial vector which represents a uniform or non-uniform probability distribution are again a matter of design preference depending on how homogeneous a database is.

Claim 8 merely reads on a recursive technique for node ranking well known in the art as admitted by applicant at page 3 of the specification where a node is more heavily weighted if it has more backlinks compared to other nodes.

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*Conclusion*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosures.

North (US Patent 5,450,535) teaches graphs employing clusters.

Cohen (US Patent 5,752,241) teaches a method and apparatus for estimating transitive closure and reachability.

Carriere et al, "Web Query: Searching and Visualizing the Web through Connectivity", Computer Networks and ISDN Systems, 1997.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen Le whose telephone number is (703) 305-4134.

The examiner can be reached on Monday through Thursday from 7:00am to 4:30pm.

The examiner can also be reached on alternate Fridays from 7:00am to 3:30pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703)305-9707.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington D.C. 20231

**or faxed to:**

(703)308-9051, (for formal communications intended for entry)

Art Unit: 2771

or:

(703)308-5403 (for informal or draft communications, please label

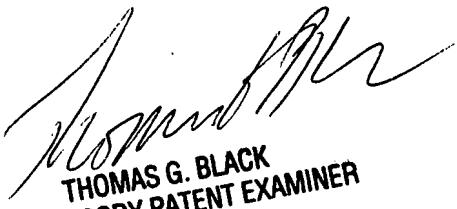
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or  
proceeding should be directed to the Group receptionist whose telephone is (703)305-  
3900.

UL

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THOMAS G. BLACK  
SUPERVISORY PATENT EXAMINER  
GROUP 2700